

AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claim 1 (currently amended): A method, comprising:

using an apparatus for controlling the load on articular cartilage forming part of an articular joint connecting a first bone to a second bone of a human or animal joint to treat arthritic conditions affecting the joint, the apparatus comprising:

[[a)] a first fixation assembly for attachment to the first bone;

[[b)] a second fixation assembly for attachment to the second bone; and

[[c)] a link assembly coupled to the first fixation assembly by a first pivot and coupled to the second fixation assembly by a second pivot and configured to permit varying separation of the first and second pivots during use in a manner enabling separation between first and second pivots to increase during angular displacement of the articular joint and span anatomy affected by arthritic conditions but lacking fractures, the first and second fixation assembly thereby each being angularly displaceable relative to the link assembly;

said apparatus provides reduction of pressure on at least a portion of the joint without substantially resisting an angular displacement associated with relatively full mobility of the first and second bones of the joint to thereby treat arthritic conditions affecting the joint;

attaching the first fixation assembly to the first bone; and

attaching the second fixation assembly to the second bone.

Claim 2 (previously presented): The method according to claim 1 in which the first fixation assembly includes at least one pin for engaging with the first bone.

Claim 3 (previously presented): The method according to claim 2 in which the first fixation assembly includes a clamp for mounting a plurality of pins each for engaging with the first bone, said plurality of pins being spaced along the length of the first fixation assembly.

Claim 4 (previously presented): The method of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a longitudinal axis of the first fixation assembly.

Claim 5 (previously presented): The method of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a transverse axis of the first fixation assembly.

Claim 6 (previously presented): The method of claim 2 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being independently rotatable about a longitudinal axis and a transverse axis of the first fixation assembly.

Claim 7 (previously presented): The method according to one of claims 1-6 in which the first fixation assembly is coupled to the link assembly by way of a first pivot in a manner selected from the group consisting of those having one and two degrees of rotation freedom.

Claim 8 (canceled)

Claim 9 (previously presented): The method according to claim 1 in which the link assembly includes a fixed separation member for maintaining said first and second pivots at a fixed distance of separation.

Claims 10-14 (canceled)

Claim 15 (previously presented): The method according to claim 1 further including means for varying separation of the first fixation assembly and the second fixation assembly as a function of the angular displacement of either fixation assembly relative to the link assembly.

Claim 16 (previously presented): The method according to claim 1 further including a drive member coupled to the first fixation assembly and to the second fixation assembly for controllably varying the angular displacement of the first and second fixation assemblies relative to one another.

Claim 17 (canceled)

Claim 18 (previously presented): The method according to claim 1 further including a sensor adapted to monitor the load applied across the link assembly.

Claim 19 (previously presented): The method according to claim 18 in which the sensor is adapted to monitor any one of the tensile load, compression load, shear forces or bending forces applied across the link assembly.

Claim 20 (previously presented): The method according to claim 19 in which the sensor comprises a strain gauge.

Claim 21 (previously presented): The method according to any one of claims 1 to 6 comprising a pair of link assemblies each pivotally anchored to both the first and second fixation assemblies and laterally displaced from one another.

Claims 22-23 (canceled)

Claim 24 (previously presented): The method according to claim 1 further including a second corresponding apparatus for coupling thereto by a plurality of bone pins.

Claims 25-34 (canceled)

Claim 35 (previously presented): The method according to claim 1, wherein the link assembly includes a spring.

Claim 36 (previously presented): The method according to claim 1, wherein each of the first and second pivots have multiple degrees of freedom during use.

Claim 37 (new): The method according to claim 1, wherein the fixation assemblies, link assembly and pivots are in-line.

Claim 38 (new): The method according to claim 1, wherein the pivots are non-sliding.

Claim 39 (new): The method according to claim 1, wherein the first and second pivots carry load so that the apparatus provides reduction of pressure on the joint.